Department of Energy
Washington, DC 20585
August 12, 2002

RCRA Docket Information Center
Office of Solid Waste (5305G)
U.S. Environmental Protection Agency Headquarters (5305G)
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Docket Number F-2002-CRTP-FFFFF

Dear Sir or Madam:

Re: *67 FR 40508, "Hazardous Waste Management System; Modification of Hazardous Waste Program; Cathode Ray Tubes and Mercury-Containing Equipment"*

On June 12, 2002, the U.S. Environmental Protection Agency (EPA) published a notice of proposed rulemaking (NPRM), which proposes revisions to the hazardous waste management system under the Resource Conservation and Recovery Act (RCRA) relative to cathode ray tubes (CRTs) and mercury-containing equipment (MCE). Specifically, EPA proposes to exclude used CRTs and glass removed from CRTs from the definition of solid waste when they are sent for recycle. EPA also clarifies that CRTs sent for reuse are not solid waste. Finally, EPA proposes to add MCE to the federal list of universal wastes.

The U.S. Department of Energy (DOE) welcomes and supports the proposals advanced in the NPRM. Accordingly, DOE's enclosed comments encourage EPA to finalize the proposed exclusion of recycled CRTs and CRT glass from the definition of solid waste as well as the proposed addition of MCE to the federal list of universal wastes. DOE also suggests EPA to actively promote adoption of the finalized national program for CRTs and MCE by the States.

The enclosed comments are divided into two sections: general and specific. The general comments address broad issues. The specific comments relate directly to particular sections of the NPRM. For clarity, each specific comment is preceded by a reference to the section of the NPRM to which it applies, and a brief description of the text to which DOE's comment is directed (in boldface type). If you have any questions or need further clarification of our comments, please contact Al Sikri of my staff (at 202-586-1879; atam.sikri@hq.doe.gov) or Don Lentzen of my staff (at 202-586-7428; donald.lentzen@eh.doe.gov).

Sincerely,

for Andy Lawrence
Director
Office of Environmental Policy and Guidance

Enclosure

cc: Marilyn Goode, Office of Solid Waste (5304W)

U.S. DEPARTMENT OF ENERGY

COMMENTS REGARDING
HAZARDOUS WASTE MANAGEMENT SYSTEM; MODIFICATION OF THE HAZARDOUS WASTE PROGRAM; CATHODE RAY TUBES AND MERCURY-CONTAINING EQUIPMENT

Notice of Proposed Rulemaking

(67 FR 40508-40528; June 12, 2002)

TABLE OF CONTENTS

U.S. DEPARTMENT OF ENERGY
COMMENTS REGARDING
HAZARDOUS WASTE MANAGEMENT SYSTEM;
MODIFICATION OF THE HAZARDOUS WASTE PROGRAM;
CATHODE RAY TUBES AND MERCURY-CONTAINING EQUIPMENT
Notice of Proposed Rulemaking
(67 FR 40508-40528; June 12, 2002)

GENERAL COMMENTS

1. The U.S. Department of Energy (DOE) supports the efforts of the U.S. Environmental Protection Agency (EPA or the Agency) to make environmental regulation "cleaner, cheaper, and smarter." Environmental regulation should make a clear distinction between products and wastes. Only when a clear element of discard is present should waste management regulations be triggered. The Resource Conservation and Recovery Act (RCRA) makes this distinction through the definition of solid and hazardous waste. Short of a comprehensive reform of the definition, EPA should exclude from the scope of this definition safe reuse and recycling operations. Proper reuse and recycling directs materials that would otherwise be discarded to commercial use, preserves landfill capacities, and generates a product from used materials rather than from scarce virgin materials. Only unsafe practices may harm human health and pollute the environment. For materials and practices that cannot be fully excluded, EPA should continue to layer the controls and avoid full RCRA Subtitle C hazardous waste management requirements when the environmental risks potentially posed are low.

2. DOE supports EPA's general philosophy of ranking waste management activities pursuant to their environmental impact. Source reduction, including reuse, must be a top priority, followed by recycling, with disposal options ranking last. Product reuse and safe recycling are environmentally and economically beneficial. Reuse and recycling conserve resources and energy. Moreover, reuse eliminates the need for processing, which may generate by-products that may require disposal. EPA's regulations should optimize the roles that consumers, retailers, and municipalities can play relative to increasing recycling opportunities.

3. Streamlining management requirements for electronics waste (e-waste), especially cathode ray tubes (CRTs) or picture tubes, will make great strides towards achieving the goals of environmental protection and resource conservation. The proposed rule, if adopted, would provide a strong economic incentive to the emerging used electronics recycling industry, while promoting protection for human health and the environment. The large reservoir of installed electronic equipment, as well as newly manufactured electronics, can then be more easily diverted from the nation's waste stream for reuse. The new regulations constitute a significant effort at the federal level to counter the problem of dumping e-wastes that contain hazardous materials. If dumped in landfills, chemicals and heavy metals contained in e-wastes have the potential to leach out, contaminate the groundwater, and harm the environment and the health of local communities. When incinerated, e-waste can generate toxic emissions. In addition, the proposed regulations discourage the offloading of e-waste overseas. Finally, the proposal

will further encourage advances to improve the end-of-life management of used electronics—i.e., minimizing and eliminating toxic chemicals through up-front design changes.

4. DOE supports EPA's efforts to encourage the reuse and recycling of used CRTs and CRT glass by providing conditional exclusion from the definition of solid waste.

5. DOE supports EPA's efforts to encourage the reuse and recycling of used mercury-containing equipment (MCE) by adding a subset of such equipment to the federal list of universal wastes. The universal waste rule (UWR) appropriately allows less risky hazardous wastes to be managed under tailored requirements that are less burdensome than full RCRA hazardous waste regulations.

6. DOE recognizes that adoption of the proposed rule by RCRA-authorized States is not required since the proposals are less stringent than the existing federal program. States do not have to embrace the streamlined regulations for CRTs or the universal waste approach to MCE. It is therefore possible that CRTs and processed CRT glass as well as MCE, for example, could be subject to full hazardous waste transportation standards in some States, while being conditionally excluded from the definition of solid (and hazardous) waste in other States. As a net result of the divergent adoption of the proposed rule by the States, reuse and recycling of e-waste could be discouraged. EPA should use its national pulpit to actively promote the adoption of the less stringent federal blueprint by all RCRA-authorized States.

7. DOE commends EPA for involving key stakeholders, including representatives of the electronics industry, throughout the development of the proposed rule. Together with EPA, DOE and other federal agencies have been in the forefront to improve the environmental management of electronic assets. The memorandum of understanding (MOU) between the United States Postal Service, the Department of Defense, DOE, the Department of Interior, and EPA seeks to reduce the environmental impact of electronic equipment use and disposal through continuous improvements to the acquisition, design, specifications, material choices, manufacturing processes, assembly technologies, distribution, and use of new electronic equipment, and the reuse, and recycling of surplus electronic equipment. The MOU was signed by Jim V. Aidala, EPA's Associate Assistant Administrator, Office of Prevention, Pesticides, & Toxic Substances, dated December 1, 2000. Moreover, initiated as part of DOE's National Electronics Recycling Center Pilot Project, the Oak Ridge National Recycle Center provides electronic recovery and recycling services to DOE and other federal government agencies, state and local governments, institutions and businesses. In this spirit, DOE welcomes the opportunity to work with EPA and encourages the Agency to continue to improve the solid and hazardous waste management programs.

SPECIFIC COMMENTS

III Cathode Ray Tubes

III.B. What Are Cathode Ray Tubes?

1. p. 40509, col. 2-3, p. 40510, col. 1 – In the preamble, EPA is explaining that CRTs are vacuum tubes, made primarily of glass, which constitute the video display components of televisions and computers.

DOE suggests that EPA consider expanding the definition of CRT to include CRTs in electronic equipment beyond televisions and computers. Such electronic equipment would include but should not be limited to scanning equipment, multichannel analyzers, or oscilloscopes. (For a revised CRT definition, see Specific Comment VI, Regulatory Requirements, Part 260—Hazardous Waste Management System: General, Subpart B—Definitions, §260.10 Definitions - p. 40525, col. 1 - item 1.i.)

III.E How do EPA's Current Regulations Apply to CRTs and Other Electronic Materials

III.E.2 When do CRTs Become Wastes?

III.E.2.a Reuse and repair of used CRTs.

1. <u>p. 40511, col. 2</u> – In the preamble, EPA is clarifying that a user sending a CRT to a reseller for potential reuse is not a RCRA generator.

Multiple sites throughout the DOE complex attempt to find users for any excess computer monitors. If no user is found, the excess intact monitors are sent to auctioneers. EPA clarifies in the preamble that a user sending a CRT to a seller for potential reuse should not be considered a RCRA generator. DOE agrees, because this activity involves a product, not a waste.

III.E.2.b Unused CRTs sent for recycling.

1. <u>p. 40511, col. 3</u> – In the preamble, EPA is clarifying that reclamation of a commercial chemical product is not regulated under RCRA and that an unused CRT sent for recycling is considered a commercial chemical product.

DOE agrees that unused CRTs sent for recycling should not be considered a solid waste but remain a commercial chemical product. Classification of unused CRTs sent for recycling as a commercial chemical product is consistent with the approach adopted by the Florida Department

of Environmental Protection and accepted in the past by U.S. EPA Region IV.[1] As a result, the reclamation of unused CRTs would not be subject to RCRA regulation.

III.E.2.c Used CRT sent for recycling.

1. p. 40511, col. 3 – In the preamble, EPA is expressing its belief that under some circumstances used CRTs sent for recycling do not resemble spent materials.

DOE agrees with the proposition that under some circumstances used CRTs sent for recycling do not resemble spent materials. This approach recognizes that a used CRT, especially when intact, resembles an unused CRT destined for recycling.

III.E.3 When Do Non-CRT Electronic Materials Become Wastes?

1. p. 40512, col. 2 - In the preamble, EPA is stating that original users sending electronic materials to resellers because they lack the knowledge to determine whether the units can be reused as products are not RCRA generators.

DOE supports EPA's line of reasoning clarifying that other non-CRT electrical materials sent to a reseller are not solid wastes until a decision is made to recycle them in other ways or to dispose of them.

III.G Proposed Requirements for Used CRTs Undergoing Recycling.

III.G.2.a Used, Intact CRTs Destined for Recycling.

1. p. 40513, col. 1 – In the preamble, EPA is proposing to exclude used, intact CRTs from the definition of solid waste unless they are disposed of.

DOE supports this exclusion because it recognizes that a used, intact CRT resembles an unused CRT destined for recycling—a common commercial product. DOE agrees that this exclusion should be codified in 40 CFR part 261 under the list of exclusions from the definition of solid waste.

III.G.2.b Used, Broken CRTs Destined for Recycling.

1. p. 40513, col. 2 – In the preamble, EPA is clarifying the conditions for exempting used or broken CRTs sent for recycling from the definition of solid waste.

---

[1] *Reclaiming End-Of-Life Cathode Ray Tubes (CRTs) and Electronics: A Florida Update*; Hazardous Materials Management Conference Tucson, Arizona, John L. Price, November 1999.

DOE agrees with the conditional exemption proposed by EPA. DOE believes that the conditions ensure minimizing releases of CRT glass to the environment. The clear labeling of packages containing CRTs—as opposed to marking the CRTs—is an important condition. DOE would like to emphasize that marking and labeling practices must not in any way interfere with recycling technologies. The Electronic Industries Alliance (EIA) advocates avoiding the use of any label or adhesive on electronic products that would have to be removed prior to recycling.[2] (See also Specific Comment VI, Regulatory Requirements, Part 261—Identification and Listing of Hazardous Waste, Subpart E—Exclusions/Exemption, §261.39 Conditional Exclusion for Broken, Used Cathode Ray Tubes (CRTs) Undergoing Recycling, §261.39(a)(2) Labeling - p. 40525, col. 3 - item 2.)

III.G.2.c Used, Broken CRTs Undergoing Glass Processing.

1. <u>p. 40513, col. 3</u> – In the preamble, EPA is proposing a conditional exclusion from the definition of solid waste for used CRTs undergoing glass processing.

DOE offers that the conditional exclusion could be clarified. In the preamble, the header is *Used, Broken CRTs Undergoing Glass Processing* (p. 40513, col. 3), while in proposed §261.39(b) the header is *Requirements for used CRT processing* (p. 40525, col. 3). Moreover, the preamble discusses the classification of a facility as a *CRT glass processor* (p. 40513, col. 3), whereas proposed §260.10 defines *CRT processing* (p. 40525, col. 1). EPA should harmonize the terminology and use regulatory terms consistently. DOE believes that the phrase "used, broken CRTs undergoing glass processing" captures the proposed conditional exclusion.

III.G.2.f Processed Glass From Used CRTs Used in a Manner Constituting Disposal.

1. <u>p. 40514, col. 3</u> – In the preamble, EPA is describing the requirements that may apply when processed glass from used CRTs is used in a manner constituting disposal.

While the preamble mentions that processed glass from used CRTs that is used in a manner constituting disposal would be subject to the requirements of 40 CFR part 266, subpart C, it does not also discuss a requirement for compliance with proposed §261.39(a)(1)-(4). In contrast, proposed §261.39(e) indicates that processed glass from used CRTs that is used in a manner constituting disposal would be subject to the storage, labeling, transportation, and speculative accumulation requirements under proposed §261.39(a)(1)-(4) as well as to the applicable requirements of 40 CFR part 266, subpart C. DOE suggests that the requirement for compliance with proposed §261.39(a)(1)-(4) be deleted from proposed §261.39(e) (see also Specific Comment on Section VI., Regulatory Requirements, Part 261—Identification and Listing of Hazardous Waste, Subpart E—Exclusions/Exemption, §261.39 Conditional Exclusion for Broken, Used Cathode Ray Tubes (CRTs) Undergoing Recycling, §261.39(e) Use constituting disposal - p. 40525, col. 3 - item 5).

---

[2] *Addressing End-Of-Life Electronics Through Design: A Compendium of Design-For-Environment Efforts of EIA Members;* January 1998.

III.H Solicitation of Comment on EPA's Proposed Management Requirements for Used CRTs and Processed CRT Glass

III.H.1 Universal Waste Alternative

1. <u>p. 40515, col. 1</u> – In the preamble, EPA is soliciting comment on whether conditionally excluding CRT glass from the definition of solid waste would be appropriate, although the Common Sense Initiative (CSI) Council recommended that CRTs should be added to the universal waste rule (UWR).

DOE agrees with EPA's approach of conditionally excluding CRT glass from the definition of solid waste. CRT glass is like a commodity. The glass recycling industry pays about $200/ton for recycled CRT cullet glass delivered to a plant. This constitutes roughly 50-60% of the virgin raw material value.[3] According to the Electronic Industries Alliance, recycled CRT glass is actually preferred by CRT manufacturers over virgin glass.[4] DOE notes that the CSI Council's goals for CRTs include improving their post-consumer management as well as their recycling rate. DOE believes that a conditional exclusion of CRT glass would be less burdensome than the UWR approach, be protective in light of risk considerations, and would lead to more recycling. Therefore, DOE recommends that EPA retain the conditional exclusion in the final rule.

III.H.2 Definition of "Broken CRT"

1. <u>p. 40515, col. 1-2</u> – In the preamble, EPA is soliciting comment on whether it might be possible to repair and reuse a CRT after the vacuum gas has been released and the glass removed from the monitor, as well as suggested alternative definitions for "broken CRT."

a. DOE notes that the preamble does not discuss the data that led EPA to believe that a CRT is generally no longer reusable as a product after the vacuum has been released and the glass removed. The definition of "broken CRT" should include the phrase that the CRT is "no longer reusable" (see Specific Comment VI, Regulatory Requirements, Part 260—Hazardous Waste Management System: General, Subpart B—Definitions, §260.10 Definitions - p. 40525, col. 1 - item 1.iv).

b. DOE suggests that, when writing the preamble to the final rule, EPA refer to "used, broken CRTs" for purposes of consistency with the regulatory language (see Specific Comment VI, Regulatory Requirements, Part 260—Hazardous Waste Management System: General, Subpart B—Definitions, §260.10 Definitions - p. 40525, col. 1 - item 1.ii).

---

[3] *Technical Report # 6 Potential Markets for CRTs and Plastics from Electronics Demanufacturing;* Chelsea Center for Recycling and Economic Development, August 1998.

[4] *Addressing End-Of-Life Electronics Through Design: A Compendium of Design-For-Environment Efforts of EIA Members*; January 1998.

III.H.3 Alternative Approaches to Speculative Accumulation and Use Constituting Disposal (Land Placement)

1. <u>p. 40515, col. 2</u> – In the preamble, EPA is soliciting comment on whether a longer accumulation time period should be provided for CRTs undergoing recycling.

In light of the commodity-like nature of CRTs, DOE agrees with proposed 40 CFR §261.4(a)(23)(i), which places no restrictions on speculative accumulation of intact CRTs. In addition, DOE favors a longer accumulation time period for broken CRTs. A longer accumulation time period will allow recycling markets to develop more fully. Longer accumulation periods will not result in harm to human health and the environment in light of the storage, packaging, and labeling requirements established as part of the proposed conditional exemption (proposed 40 CFR §261.39). DOE believes that recyclers should be allowed to accumulate and sell CRTs in response to the economic cycles of the recycling market—as opposed to the stiff 75 percent/1-year anniversary trigger advanced in the proposal (proposed 40 CFR §261.39(a)(4) in conjunction with 40 CFR §261.1(c)(8)). DOE therefore urges EPA to remove the requirement or consider a longer accumulation time period for broken CRTs undergoing recycling.

III.H.4 Alternative Standards for Processing Used CRTs

1. <u>p. 40515, col. 3</u> – In the preamble, EPA is soliciting comment on whether to retain the proposal that glass processing be conducted at temperatures that are not sufficiently high to volatilize lead.

DOE believes that the proposed temperature requirement is not needed. The use of high temperatures may be required as an integral aspect of CRT recycling. Avoiding elevated temperatures sufficient to cause lead volatilization should not be made a factor that triggers a solid waste determination. Multiple environmental regulations already address possible environmental risks and controls associated with the potential volatilization of lead in the course of CRT recycling operations. As EPA explains in the preamble on p. 40515, col. 3, worker health and safety would be covered under the provisions of 29 CFR part 1810 of the Occupational Safety and Health Administration (OSHA), while potential air or surface water releases from CRT recycling would be covered under the applicable provisions of the Clean Air Act and Clean Water Act.

III.H.5 Alternative Standards for Processed Glass From Used CRTs Sent for Recycling

1. <u>p. 40516, col. 1</u> – In the preamble, EPA is soliciting comment on whether to exclude from the definition of solid waste only processed glass recycled by being sent to a CRT glass maker, as recommended by the CSI Council.

DOE supports the wider exclusion adopted by EPA because it would provide an incentive for generators to recycle processed glass in lead smelting that may possibly offset the disincentive for such recycling created by the recycling fees charged by the smelters. Processed glass sent to

lead smelters is more like a commodity than a waste. Sending processed glass to lead smelters, in addition to CRT glass making, does not pose increased environmental risks. Proposed 40 CFR §261.39(c), which governs processed CRT glass sent to CRT glass making or lead smelting, recognizes that the two destinations are comparable.

2. p. 40516, col. 1 – In the preamble, EPA is soliciting comment on whether the exclusion should be extended to copper smelters or other glass uses without packaging and labeling requirements.

With regard to the applicability of the exclusion to other glass uses, DOE believes that extending the exclusion to other legitimate CRT glass recycling activities would be appropriate. Those may include using CRT glass to manufacture industrial panels, radiation and acoustic barriers, fiberglass, decorative tile, industrial abrasives, and coating products.[5]

III.H.7 Disposal of CRTs

1. p. 40516, col. 2-3 – In the preamble, EPA is soliciting comment on whether to allow CRTs sent for disposal in hazardous waste facilities to comply with streamlined packaging and labeling requirements similar to those proposed for recycling.

DOE believes that EPA's proposals will spur recycling activities and reduce the number of CRTs sent to hazardous waste landfills or incinerators. Carving out, within full RCRA Subtitle C requirements, streamlined packaging and labeling requirements for CRTs sent to disposal in hazardous waste facilities may increase regulatory complexity.

2. p. 40516, col. 3 – In the preamble, EPA is soliciting comment on whether to add used CRTs to the universal waste program.

DOE believes that the proposed system of tailored exclusions for used CRTs reflects the commodity-like nature of these materials. The proposals balance environmental protection and resource conservation. DOE does not believe that the universal waste program would necessarily provide better management for used CRTs.

IV Mercury-Containing Equipment

IV.D Solicitation of Comment on Universal Waste Notification Requirements

1. p. 40519, col. 3 – In the preamble, EPA is soliciting comment on whether to delete from 40 CFR §273.32(b)(5) the requirement to notify the Regional Administrator of which particular wastes exceed the 5,000 kg accumulation limit.

---

[5] *Analysis of Potential Alternative Uses for CRT Glass;* Draft Recycling Support Work Assignment 2-24 for the US Environmental Protection Agency Office of Solid Waste, Task 4, Prepared by Dynamac Corporation, August 16, 2001.

DOE agrees that requiring large quantity handlers of universal waste (LQHUW) to notify the Regional Administrator of the types of universal waste that exceed the 5,000 kilograms accumulation limit is unneeded because existing regulations already require LQHUW to provide a list of the types of universal waste managed by the handler. (See Specific Comment VI, Regulatory Requirements, Part 273—Standards for Universal Waste Management System, Subpart C—Standards for Large Quantity Handlers of Universal Waste, §273.32 Notification - p. 40527, col. 2 - item 1.)

V State Authority

V.C Interstate Transport

1. p. 40520, col. 2-3 – In the preamble, EPA is describing how different state regulatory requirements for the transportation of CRTs, CRT processed glass, or MCE may increase the complexity of interstate transport of these items.

DOE recognizes that adoption of the proposed CRT/MCE rule by RCRA-authorized States is not required because the proposals are less stringent than the existing federal program under RCRA Subtitle C. If States do not consistently adopt the proposed rule, CRTs and processed CRT glass as well as MCE could be subject to divergent transportation regulations governing different portions of a trip (General Comment 5 above and p. 40520, col. 2-3 of the preamble). In addition, state legislation may differ with respect to specific requirements governing landfill disposal bans, funding of recycling schemes (through fees or grants), and take-back and collection programs (for a compilation of e-waste legislation, compiled 03/01/2002 from state legislature web sites, see National Caucus of Environmental Legislators, available at <www.ncel.net/ewastelist.html> (accessed on June 27, 2002)). In the preamble, EPA seems to infer that States will inevitably streamline and harmonize their regulatory requirements, which will reduce the complexity of interstate transport over time. DOE is concerned that all States may not adopt the EPA's proposed approach. DOE therefore urges EPA to take an active role in persuading States to adopt the proposed national program for CRTs and mercury-containing equipment. A consistent national approach to the management of CRTs and MCE will help the emerging electronics recycling industry.

VI. Regulatory Requirements

Part 260—Hazardous Waste Management System: General

Subpart B—Definitions

§260.10 Definitions.

1. p. 40525, col. 1 - In proposed §260.10, EPA is defining Cathode ray tube or CRT.

i. DOE recommends changing the first sentence of the CRT definition in §260.10 to read as follows in the final rule [underline font = additions]: "*Cathode ray tube or CRT* means a vacuum

tube, composed primarily of glass, which is the video display component of an electronic device, such as a television ~~or~~, a computer monitor, a scanning machine, a multichannel analyzer, or an oscilloscope."

ii. DOE suggests that "used," should be added before "intact" and "broken." DOE recommends changing the second and third sentences of the CRT definition in §260.10 to read as follows in the final rule [underline font = additions]:

"A~~n~~ used, intact CRT means.... A used, broken CRT means...."

iii. EPA should clarify why intact CRTs are limited to those remaining within the monitor. DOE believes it may be possible for CRTs that have been removed from the monitor casing to be intact.

iv. DOE also suggests that the definition of "used, broken CRT" indicate that the CRT is "no longer reusable." DOE recommends changing the third sentence of the CRT definition in §260.10 to read as follows in the final rule [underline font = additions]:

"A used, broken CRT refers to a CRT no longer reusable and means glass removed from the monitor after the vacuum has been released."

Part 261—Identification and Listing of Hazardous Waste

Subpart E—Exclusions/Exemptions

§261.39 Conditional Exclusion for Broken, Used Cathode Ray Tubes (CRTs) Undergoing Recycling.

1. p. 40525, col. 2 - In the introductory sentence of proposed §261.39, EPA is specifying that "broken, used CRTs are not solid wastes if they meet the following conditions...."

DOE suggests that the introductory sentence should be changed or deleted. It is confusing, since the remainder of the section covers, in addition to the conditional exemption for used, broken CRTs, a conditional exemption for processed CRT glass sent for smelting and other types of recycle (§261.39(c) and (d), respectively). Furthermore, requirements for processed CRT glass being used in a manner constituting disposal are also provided (§261.39(e)), which unlike the recycling activities, is not an activity being conditionally excluded from the definition of solid waste.

2. p. 40525, col. 3 - In proposed §261.39(a)(2), EPA is offering language relative to a labeling condition.

DOE believes that the labeling option, which reads "Waste cathode ray tube(s)–contains leaded glass," is not needed since the CRTs will not be waste as long as all conditions in 261.39(a) are met. A more simplified label could read "Used cathode ray tube(s)—for recycle."

3. **p. 40525, col. 3 - In proposed §261.39(c), EPA is providing a conditional exclusion for processed CRT glass sent to CRT glass making or lead smelting.**

i. DOE suggests that the first part of the first sentence be changed to read "Glass from used, broken CRTs...."

ii. In the second sentence, DOE suggests that EPA consider clarifying the requirements that will govern imported, processed glass from used CRTs. The phrase "these requirements" is ambiguous because the remainder of §261.39(c) indicates only that "glass removed from used CRTs that is destined for recycling at a CRT glass manufacturing facility or a lead smelter after processing is not a solid waste, unless it is speculatively accumulated ...," which is not an affirmative statement of requirements.

4. **p. 40525, col. 3 - In proposed §261.39(d), EPA is offering a conditional exclusion for processed CRT glass sent to other types of recycling.**

i. DOE suggests that EPA consider changing the first sentence of §261.39(d) to read as follows in the final rule [strikeout font = deletions; underline font = additions]:

> "(d) *Processed CRT glass sent to ~~other~~ types of recycling other than lead smelting or CRT glass manufacturing, except for uses constituting disposal:* Glass removed from used, broken CRTs that is destined for ~~other~~ types of recycling after processing other than lead smelting or CRT glass manufacturing (except for uses constituting disposal) is not a solid waste if it meets the requirements of paragraphs (a)(1)–(4) of this section."

ii. Similar to the suggestion made above (Specific Comment VI, Regulatory Requirements, Part 261—Identification and Listing of Hazardous Waste, Subpart E—Exclusions/Exemptions, §261.39 Conditional Exclusion for Broken, Used Cathode Ray Tubes (CRTs) Undergoing Recycling - p. 40525, col. 3 - item 3), DOE suggests that in §261.39(d) EPA consider clarifying the requirements that will govern imported, processed glass from used CRTs.

iii. Finally, DOE suggests that the first part of the second sentence in §261.39(d) be changed to read "Imported, processed glass from used, broken CRTs..."

5. **p. 40525, col. 3 - In proposed §261.39(e), EPA is addressing use constituting disposal.**

DOE notes that the requirements in proposed §261.39(a)(1)-(4) are inconsistent with 40 CFR part 266, subpart C. Therefore, DOE suggests deleting the requirement in proposed §261.39(e) for compliance with §261.39(a)(1)-(4). Specifically, DOE suggests that the first sentence in proposed 262.39(e) be changed to read as follows [strikeout font = deletion; underline font = addition]:

> "*(e) Use constituting disposal*: Processed glass ~~removed~~ from used, broken CRTs ~~monitors~~ that is used in a manner constituting disposal must comply with ~~the requirements of paragraphs~~

~~(a)(1)–(4) of this section and~~ the applicable requirements of part 266, subpart C of this chapter."

Part 273—Standards for Universal Waste Management

Subpart A—General

§273.9 Definitions.

1. <u>p. 40526, col. 3</u> - In proposed §273.9, EPA is defining mercury-containing equipment, large quantity handler of universal waste, and small quantity handler of universal waste.

i. EPA should clarify whether for determining the handler status volume limits (large vs. small quantity) only the weight of the mercury or the weight of the entire equipment is considered.

ii. As an editorial comment, DOE notes that within the definition of "universal waste," MCE should be listed as subsection "(5)" in §273.9 "Universal Waste means...", rather than as subsection "(e)."

Subpart B—Standards for Small Quantity Handlers of Universal Waste

§273.14 Labeling/ Marking

1. <u>p. 40527, col. 2</u> - In proposed §273.14(f), EPA is providing a labeling/marking requirement.

DOE recommends changing the 273.14(f) to read as follows in the final rule [strikeout font = deletions; underline font = additions]:

"(f) <u>Waste</u> ~~M~~<u>m</u>ercury-containing equipment...."

Subpart C—Standards for Large Quantity Handlers of Universal Waste

§273.32 Notification

1. <u>p. 40527, col. 2</u> - In proposed §273.32(b)(5), EPA is requiring duplicate notification.

DOE recommends changing §273.32(b)(5) to read as follows in the final rule [strikeout font = deletions]:

"(5) statement indicating that the handler is accumulating more than 5,000 kg of universal waste at one time ~~and the types of~~

~~universal waste (e.g., batteries, pesticides, thermostats, and lamps) the handler is accumulating above that quantity~~."

DOE believes that §273.32(b)(5) largely duplicates the information required by §273.32(b)(4). Since the quantities of universal waste held at any given time may change, a one-time notice of what is over the 5,000 kilogram limit may not be correct at a later date. (See also Specific Comment IV.D, Item 1.)

§273.34 Labeling/ Marking

1. <u>p. 40528, col. 3</u> - In proposed §273.34(f), EPA is providing a labeling/marking requirement.

DOE recommends changing §273.34(f) to read as follows in the final rule [strikeout font = deletions; underline font = additions]:

"(f) <u>Waste</u> ~~M~~<u>m</u>ercury-containing equipment...."